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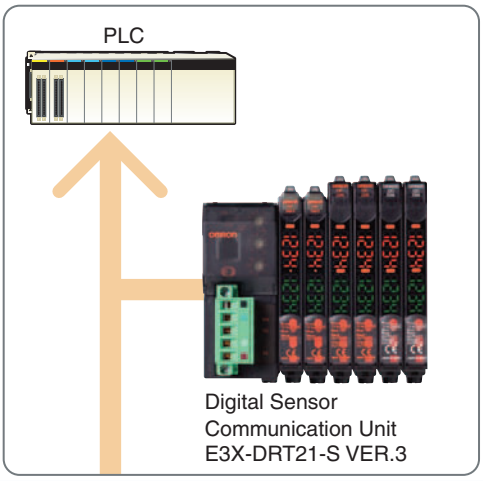
OMRON

DeviceNet Model

## The DeviceNet Communication Unit That Simplifies Managing Sensor Settings

- ON/OFF signals and incident light levels can be sent to the host PLC without any need for programming (DeviceNet communications slave functionality).
- Threshold values and function settings can be read, written, or taught (using the Message Communications function).
- Simply connect the communication cables and slide the Amplifiers from the side for wire-saving.
- Up to 16 Sensor Amplifiers can be connected.



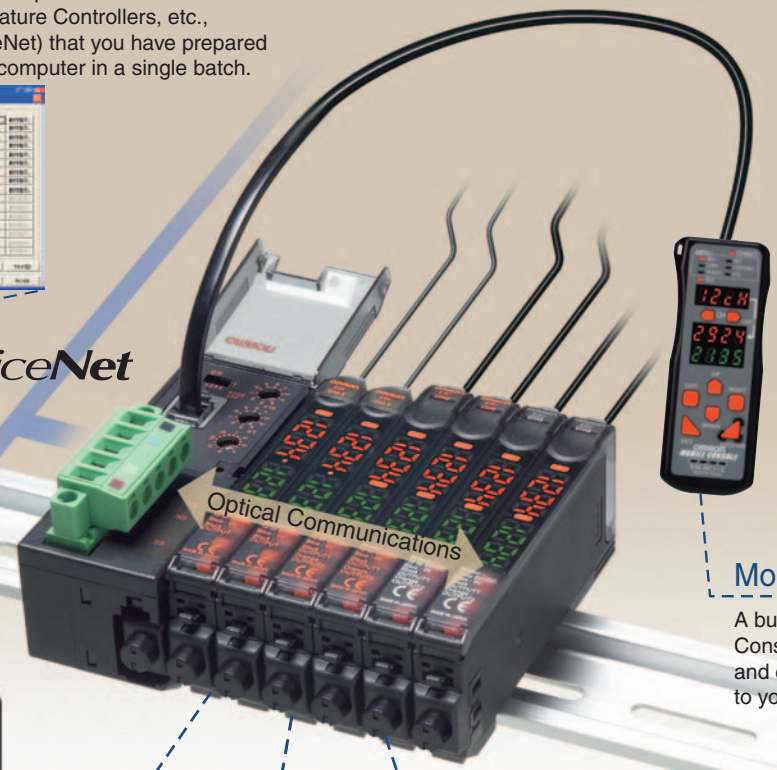

CE For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

# A Network That Expands Your World

### Configurator

Download a group of parameters for devices (Sensors, Temperature Controllers, etc., supporting DeviceNet) that you have prepared on your personal computer in a single batch.

DeviceNet




### Mobile Console

A built-in interface for a Mobile Console lets you bring setting and confirmation operations to your fingertips.

PLC

### Monitor operating hours.

The operating hours for sensors can be stored in internal memory and used for planning maintenance and other applications.

### Supports a wide range of sensors.

The Unit supports a variety of digital sensors, including Fiber Sensors, Laser Sensors, and Proximity Sensors.

### Up to 16 channels can be connected.

## Ordering Information

■ Digital Sensor Communication Unit

| Type | Model |
|---|---|
| Device Net | E3X-DRT21-S VER.3 |

■ Wire-saving Connector (sold separately)

| Type | Model |
|---|---|
| Cordless Slave Connector | E3X-CN02 |

**Note :** Order as many Connectors as the number of Sensors.

## Ratings and Specifications

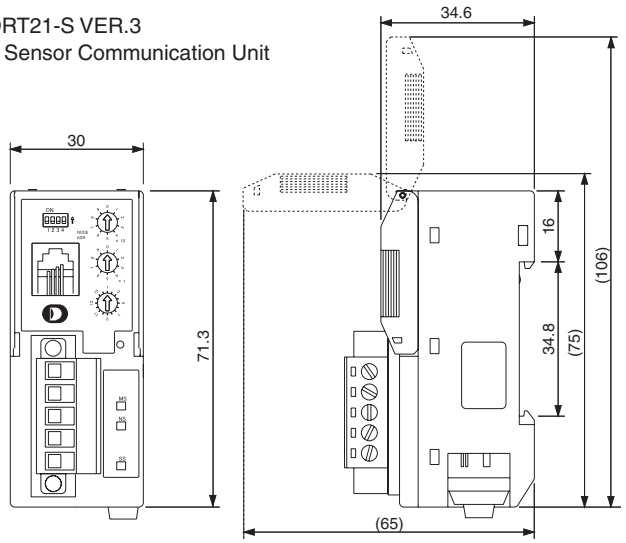
| Item | | Description |
|---|---|---|
| Communications Method | | DeviceNet communications |
| Communications functions | Remote I/O Communications Slave function | Monitors ON/OFF output, status, incident light level (digital display data) |
| | Message Communications function | Sets parameters using Explicit messages |
| | Configurator | Edits slave device parameters, enables device monitor functions |
| Mobile Console connection | | E3X-MC11-SV2 can be connected |
| Power supply | | Supplied from the DeviceNet communications connector<br>(power is also supplied to all connected Sensors through Wire-reducing Connectors) |
| Maximum connectable Sensors (See note 1.) | | For remote I/O communications 1-CH mode (See note 2.) : 13<br>For remote I/O communications 2-CH mode (See note 3.) or<br>for remote I/O communications 2-CH mode + detection level monitoring mode (See note 4.) : 16 |
| Connectable Sensors (See note 5.) | | E3X-DA-S Series or E3X-MDA Series Digital Fiber Sensor<br>E3C-LDA Series Laser Photoelectric Sensor with Separate Digital Amplifier<br>E2C-EDA High-resolution Digital Proximity Sensor with Separate Amplifier<br>(use connector-type Amplifier Units and the E3X-CN02 Cordless Slave Connector) |
| Power supply voltage | | 11 to 25 VDC |
| Current consumption (See note 6.) | | 70 mA max. |
| Ambient operating temperature | | –20 to 55°C |
| Ambient operating humidity | | 30% to 85% (with no condensation) |
| Storage temperature | | –30 to 70°C |
| Dimensions (mm) | | 30 x 34.6 x 71.3 (WxHxD) |
| Weight (packed state) | | Approx. 150 g |

**Note 1:** When any of the following Sensors is connected, two words are allocated per Sensor and each Sensor is counted as two Sensors for the number of connected Sensors.
E3X-DA□-S (□: 7/9), E3X-DA□TW-S (□: 6/8), E3X-MDA□ (□: 6/8), E3C-LDA□ (□: 6/8), E2C-EDA□ (□: 6/8)
**2:** Communications is possible for the ON/OFF output data from 13 Units. One word is allocated as the input area in the Master.
**3:** Communications is possible for the ON/OFF output data from 16 Units and the number of connected Sensors. Two words are allocated as the output area in the Master.
**4:** Communications is possible for the ON/OFF output data from 16 Units, the number of connected Sensors, and the detection levels for the connected Sensors. Two words are allocated as the input area and one word is allocated for the number of connected Sensors in the Master.
**5:** Connection cannot be performed if the response speed of the Sensor is set to super-high-speed mode.
**6:** This does not include the current supplied to the Sensor.

## Dimensions (mm)

Tolerance class IT16 applies to dimensions in this datasheet unless otherwise specified.

E3X-DRT21-S VER.3
Digital Sensor Communication Unit




This document provides information mainly for selecting suitable models. Please read the *Instruction Sheet* carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

**Note: Do not use this document to operate the Unit.**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